English Language Learners and Distinctions Between Student-Teacher Relationships and School Climate

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Baumeister and Leary (1995) propose that the need for belonging is a fundamental human need beyond mere want or preference. They note that people need a few stable relationships with others characterized by frequent contact, positive feelings, and mutual affective concern. A student's sense of belonging in school can be a powerful determinant of how well she or he does in school. Indeed, one quarter of those who drop out of school report they did not feel they "belonged" at school (U.S. department of Education, 1993, as cited by Juvonen, 2006). Schools that promote a sense of belonging may be creating environments that maximize student learning, and promoting a sense of school belonging may be especially important for English language learners (ELL) as target language fluency is inversely related to the stress associated with adjusting to the majority culture (Elmeroth, 2003; Yeh & Inose, 2003). In addition, those from minority groups are over-represented among those living in poverty. Both minorities and those with lower SES are especially vulnerable to dropping out. In 2002, 16.6% of those born outside of the United States lived below the poverty level (Larsen, 2004). The figure is 21.6% for those from Latin America (Larsen). And in 2004, while 3.7% of non-Hispanic Whites in grades 10-12 dropped out of high school, the figure was much higher for Hispanics—8.9% (Laird, DeBell, & Chapman, 2006). Similar trends can are found when examining SES. Those in high income SES brackets had a dropout rate of 2.5% while those with low income more than four times this at 10.4% (Laird, DeBell, & Chapman). In reviewing studies on dropout rates, Steinberg, Blinde, and Chan (1984) note that reading aptitude is negatively associated with leaving school, even after accounting for SES, suggesting that ELLs who have low levels of reading proficiency may be especially vulnerable to leaving school early.

Two factors believed to contribute to a sense of school belonging are perceptions of school climate and student-teacher relationships (Juvonen, 2006). The benefits of a positive

perception of positive school climate, or atmosphere, transcends simply preventing students from dropping out—it is also associated with students who attend school (Nichols, 2008), adopt task goals (L. H. Anderman & Anderman, 1999), and are academically engaged (Furrer & Skinner, 2003). And engagement, in turn, results in increased academic performance. Engaging students requires consistently creating positive emotional experiences which in turn, contribute to increased motivation necessary for learning to occur (Meyer & Turner, 2006).

Student-teacher relationships are thought to be one of the most significant contributors to a students' sense of school belonging. Positive student-teacher relationships promote student engagement (Meyer & Turner, 2006). The climate teachers create can prime the appraisal process students use, which then affects goal setting, strategy choice, and taking action (Meyer & Turner). Additionally, perceived teacher support is related to participation (Voelkl, 1995) as well as to instruction that students report to be motivating (Goodenow, 1993; Meyer & Turner). Teachers who create and maintain positive relationships with their students contribute to the benefits associated with positive learning environments. Teacher-student closeness is associated with increased academic performance, teacher ratings of increased self-directed behavior, school liking (Juvonen, 1996), and school- and class-related interest (Wentzel, 1998), while student perceptions of teachers' negative academic and behavior expectations are associated with student disengagement and disciplinary problems (Juvonen). Additionally, higher academic achievement higher levels of life satisfaction are associated with students who perceive their teachers as granting autonomy, emphasizing mastery in learning, and having high expectations (Karam, 2006).

Student-teacher relationships may help mediate some of the adverse effects of critical periods such as times of transition (Wigfield, Lutz, & Wagner, 2005). The transition from

elementary to junior high school can be a difficult one for many students. One reason for this may be due to the disconnect between the two environments—specifically, that the elementary school experience is a more appropriate fit to the developmental level of the student than is the junior high school experience (Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan, & MacIver, 1993). Time of transition may be especially difficult for those lacking parental support. Thus, teacher support may compensate for lack of parental support (Juvonen, 2006). Those lacking parental support may be the ones who need teacher support the most at a time when they need it the most—during transition. And, of course, a significant period of transition is adapting to a new country/culture (Partida, 1996; Poyrazli & Grahame, 2007; Yeh & Inose, 2003)—the situation many ELLs find themselves in.

The benefits of the teacher-student relationship was illustrated in a study by Richards (2006) to examine the perception of these relationships and their implications for learning in a sample of high school students. Twenty-seven high school students were asked a series of questions including: (a) how they define positive learning relationships with a teacher, (b) how teacher's feelings about the student enhance student learning, and (c) what they perceive as the characteristics of caring teachers. The high school students in his study reported that the teacher-student relationship was the most important variable in learning. Additionally, students reported that negative comments—both from other students as well as the teacher—undermined a positive relationship with their teachers. Another characteristic of a positive teacher-student relationship was accessibility—teachers whom students felt they could approach for academic *as well as* personal issues contributed to good teacher-student relationships.

Interestingly, positive student-teacher relationships have much in common with student-centered instruction. Student-centered instruction "emphasizes teacher empathy (understanding),

unconditional positive regard (warmth), genuineness (self-awareness), non-directivity (student-initiated and student-regulated activities), and the encouragement of critical thinking (as opposed to traditional memory emphasis)" (Cornelius-White, 2007, p. 113). In his meta-analysis of 119 studies, Cornelius-White found that variables associated with student-centered instruction were associated with positive student outcomes—specifically, cognitive outcomes such as critical and creative thinking and affective and behavioral outcomes such as increased participation and initiation, satisfaction, motivation to learn, social connections and skills, and a decrease in absences and disruptive behavior.

L. Anderman and Freeman (2004) note that students play an active role in their sense of school belonging—it is not entirely determined by the environment. Finn (1989) notes that research strongly indicates that those who drop out of school have less a sense of identification with school than those who do not. He describes identification as an internal state with two components: Belonging, and valuing. Finn proposes the *Participation-Identification Model* as a way to understand dropping out of school as a *process*, as opposed to merely an outcome. In this model, students who develop a sense of school identification go through a series of levels of school participation. The first level entails responding to teacher-initiated directions or questions. Finn proposes participation at this level continues to the extent individuals have the capability to perform required tasks, and insomuch as instruction is clear and developmentally appropriate. In the second level students initiate interaction by spending more time than is required on class work, homework, or subject-related clubs, etc.

The third level of participation is more social in nature and entails extracurricular activities such as intramural and interscholastic sports. Participation in extracurricular activities is associated with improved race relations, a positive attitude towards school, more personal

teacher-student relations, involvement in political and social activity in young adulthood, academic achievement in males, educational aspirations and attainment (Holland & Andre, 1987), higher GPA (Eccles, Barber, Stone, & Hunt, 2003), and lower delinquency rates (Holland & Andre; Mahoney, 2000). Holland and Andre suggest that there may be increased benefits to higher levels of extracurricular involvement. Participation at this third level may be especially important for at-risk students who are less likely to leave school if they have been involved in extracurricular activities (Mahoney & Cairns, 1997).

Involvement with school governance characterizes fourth level participation—contributing to the decisions that affect one's school experience. This model suggests that ELL students involved in school-related activities may have a stronger sense of school belonging than those who are not involved. Involvement in school activities would be especially critical for these students if they do indeed have a lesser sense of school belonging than their native English-speaking peers.

To date, no studies have directly examined the relationship between English language learners' sense of school belonging and English language ability, nor between belongingness and their level of involvement with school related activities.

ELLs and Belonging

Soloman, Battistich, Kim, and Watson (1997) proposed that a sense of belongingness may be especially important for disadvantaged students. ELLs are disproportionally represented among those living below the poverty line (Larsen, 2004). As noted earlier, Baumeister and Leary (1995) suggest that two conditions need to be met in order for belongingness needs to be fulfilled. First, interactions with others need to be characterized by positive affect. Though this could be partially conveyed to ELLs through the use of genuine smiles, a caring touch,

individual attention, etc., it is reasonable to expect these gestures in and of themselves would be inadequate in fulfilling the need for deeper interactions that could only be achieved through spoken language with an adequate level of proficiency. If students finds themselves in a particular context in which they lack adequate proficiency or a situation in which other members of their language group are relatively few or non-existent, then it may be difficult for them to have a strong sense of school belonging. A tight-knit immigrant community may have positive benefits such as acting as a buffer against dropping out of school (Kaufman, 2004).

The second condition is that the relationship should be marked by stability. ELLs in English as a Second Language (ESL) pull-out programs would be spending less time in their regular classrooms, and thus less time with their native-language speaking peers. In addition to the decreased time spent in the classroom, being in an ESL program could also stigmatize ELLs (Padilla, 2006) making it more difficult to establish satisfying relationships during the period before they have reached adequate levels of English proficiency—though this lack of stability among peer relationships could possibly be attenuated to the extent the ESL teacher remained constant across school years. Additionally, it may be particularly difficult for those ELLs with low SES to have a strong sense of school belonging to the extent that lower SES leads to increased mobility as families move from town to town in search of work, or whose employment is seasonal requiring moves to different regions. It may be difficult to have a sense of school belonging when one has a history of changing schools frequently and at irregular intervals. However, even immigrants with high SES may be highly mobile. For example, many Japanese families are transferred to the U.S. for a period of two to four years before returning to their home country.

Another issue that could impact students' sense of belonging is relationship between student racial background and the school environment. Of interest are findings that students have an increased sense of belongingness to schools that are part of their neighborhoods, and reflect their race—including the teaching staff (L. Anderman & Freeman, 2004). And when differing racial backgrounds also represent different cultural backgrounds, it is not difficult to imagine that a particular practice that promotes belongingness in one culture may fail to do so in another. For example, the use of story-telling as a means of instruction may do more to instill a sense of belonging to those of particular cultural backgrounds.

But, a sense of belongingness is more than an outcome. Juvonen (2006) draws upon studies in social psychology to propose a reciprocal relationship between student behaviors, relationships with teachers/classmates, and sense of belonging. Whereas previous models have suggested sense of belonging as an outcome of adaptive outcome of adaptive teacher/classmate relationships, Juvonen posits that students engage in specific behaviors to meet belongingness needs. In other words, a need to belong is not only the result of adaptive relationships, but also the motivation to behave in ways to establish positive, stable relationships. For ELLs, English language proficiency is requisite if belongingness needs are to be met with their native English-speaking peers—this may be especially critical in settings where there are a limited number of peers who share the same native language. Thus, it would appear that the attainment of a sufficient degree of language proficiency is a necessary precursor to meet belongingness needs. At the same time, a desire to meet belongingness needs could provide the impetus for increased language study. Gardner (1983, 1988; Gardner & Smythe, 1975) proposed a *socio-educational* model of language-learning. A unique feature of this model is that of an *integrative* motive. The integrative motive is an attitudinal complex which reflects "a desire to learn the language of

another language community in order to communicate with, interact with, or to become (in some small way) a part of the other language community" (Gardner & Smythe, p. 219). Gardner and Smythe note that language learning is more than acquiring a new skill set, but also in the taking on of new behavior patterns of the target linguistic/cultural community. The premise is that students with a desire to integrate into the target language community will find the language-learning context pleasant, while those without this motive will fail to receive benefit. In Gardner's model, learners are motivated out of a desire to integrate with the target-language community. However, it should be noted that much of Gardner's work was with native English-speaking French learners in Canada. It may be that disadvantaged immigrants to the U.S. are motivated less from a desire to integrate than to satisfy the basic psychological need of belongingness, if not to obtain the ability to function in the majority culture in general. In this way, belongingness may be both an outcome, as well as a motivator for English study.

Purpose of the Study

The purpose of the study is two-fold. First, is to examine the relationship between ELLs' sense of school belonging and self-reported English ability. Yeh and Inose (2003) found that English proficiency predicted the level of interpersonal closeness to others (e.g. peers, friends, society) among international students in the U.S. Thus, the first research question of the study is: *Does self-reported English proficiency predict ELLs' sense of school belonging?*

The second purpose of this investigation is to examine Finn's (1989) Participation-Identification Model as it pertains to English language learners. The model predicts that participation in school activities will result in greater levels of identification with school, and that higher levels of involvement will result in increased identification. Therefore, the second

research question of the study is: *Does involvement in school activities predict ELLs sense of school belonging?*

In this study, two antecedents to students' sense of belonging will be measured: (a) students' report regarding their perception of school climate, and (b) their perceptions of teacher-student relationships at the school.

Methods

Participants

Participants were 15,430 10th-grade students from the Educational Longitudinal Study of 2002 (ELS:2002) (Ingels, Pratt, Wilson, Burns, Currivan, Roger, & Hubbard-Benasz, 2007) enrolled in one of the 752 schools participating in the ELS:2002 study during spring of the 2001/2002 school year. There were 7,741 females and 7,689 males. There were 10,840 non-Hispanic Whites, 2,227 Hispanics, 2,027 African Americans, 1,465 Asian/Pacific Islanders, and 871 classified as "other."

From a population of approximately 27,000 schools, 1268 were sampled with 1221 deemed eligible for the study. Of those, 752 agreed to participate, and were comprised of 580 public, 95 Catholic, and 75 non-Catholic private. There were 250 urban, 361 suburban, and 141 rural schools. Approximately 26 sophomores from each school were selected resulting in 19,218 sampled students of which 17,591 were eligible for the study. Of these, 15,362 agreed to participate, with 2,519 reporting that English was *not* their native language. Each school was provided guidelines to determine if students were eligible to participate in the study (Ingels, Pratt, Roger, Siegal, & Stutts, 2004). In regards to limited English proficiency, those students who had received academic instruction for at least three years, or "in the school's judgment, it

was felt that the student could meaningfully respond to the questionnaire or validly be assessed" (Ingels, *et al*., p. 34) were deemed eligible for participation in the study.

Measures

Student-teacher relationship and school climate. The Student-Teacher Relationship and School Climate scales were derived from question 20 of the ELS:2002, 10th grade, base year student questionnaire (Ingels, *et al*., 2007). Items in this question prompt respondents to mark their agreement with 14 items on a four-point, Likert-type scale (Strongly Agree, Agree, Disagree, Strongly Disagree). Positively-worded items were reverse-coded so that "Strongly Agree" was the highest score, and "missing" values (e.g. non-responses, multiple responses, etc.) were coded so as not to factor into the analysis. The number of respondents for the individual items of question 20 ranged from a high of 14,627 (item *a*: students get along with teachers) to a low of 14,371 (item *f*: teachers are interested in students) with a mean of 14,518.3.

Items in question 20 address two factors that contribute to a sense of belongingness—student-teacher relationships (5 items) and school climate (9 items). An example item addressing student-teacher relationships is "teachers are interested in the students." An example addressing school climate is "I don't feel safe at this school." A series of exploratory factor analyses produced a clear factor in which items pertaining to student-teacher relationships loaded strongly to, but did not produce a single factor in which school climate items loaded to. A reliability analysis was performed on each of the proposed *a priori* scales and indicated acceptable reliability for each scale (Cronbach's $\alpha = .731$ for Student-Teacher Relationship and .696 for School Climate). See Appendix for a list of the items included in the Student-Teacher Relationship and School Climate scales.

Self-reported English ability (SREA). The SREA scale was derived from question 70 of the ELS:2002, 10th grade, base year student questionnaire (Ingels, *et al*., 2007). Respondents were prompted to mark how well they read, write, speak, and understand spoken English on a 4-point, Likert-type scale (*Very well*, *Well*, *Not well*, *Not at all*). Items were reverse-coded so that "Very well" was the highest score. Missing values were coded so as not to factor into the analysis. The number of respondents to this question ranged from a high of 2297 (item *b*: speak English) to a low of 2279 (item *c*: read English) with a mean of 2287.5. An exploratory factor analysis indicated the presence of a single factor accounting for 75.183% of the variance (Bartlett's Test of Sphericity: $p < .001$; KMO sampling adequacy = .805). A reliability analysis suggested a highly reliable measure (Cronbach's $\alpha = .927$).

School-sponsored Activities (SSA). This measure was derived from question 41 of the ELS:2002, 10th grade, base year student questionnaire. Respondents were prompted to indicated yes/no whether they have participated in a total of 8 school-sponsored activities: (a) band, orchestra, chorus, or choir, (b) school play or musical, (c) National Honor Society or other academic honor society, (d) school yearbook newspaper, literary magazine, (e) service club, (f) academic club, (g) hobby club, and (h) vocational education club, vocational student organization (e.g. DECA, VICA, FFA, FHA). Items from the SSA were scored cumulatively so that students received acknowledgement for participating in more than one school activity. Therefore, scores could range from 0 to 8.

Intramural sports (IMS). The IMS was derived from question 39 of the student questionnaire (Ingels, *et al*., 2007). Respondents were prompted to indicate whether they participated or not in intramural sports offered at their school for a total of 8 intramural activities: (a) baseball, (b) softball, (c) basketball, (d) football, (e) soccer, (f) other team sport, (g) an

individual sport (e.g. wrestling, golf, tennis), and (h) cheerleading, pompom, or drill team. Items were coded so that students received acknowledgement for participating in more than one intramural activity. Scores could range from 0 to 8.

Interscholastic sports (ISS). ISS was derived from question 40 of the ELS:2002, 10th grade, base year student questionnaire (Ingels, *et al*., 2007). Like the IMS, respondents were prompted to indicate whether they've participated or not in the interscholastic sports offered at their school for the same eight categories as the IMS. Additionally, the question prompts respondents to mark whether their participation was as a varsity or junior varsity member or whether they participated as a captain or co-captain on the varsity squad. In the ISS, responses were coded so that each participant received one score for reported participation in any of the interscholastic activities regardless of which squad or role. The assumption is that students' sense of school belonging would be affected by whether or not they held team membership as opposed to the *type* of membership. And as with the IMS, items from the ISS were coded so that students received acknowledgement for participating in more than one interscholastic activity.

School Government Participation (SGP). This measure was determined by participant response to item "c" on question 41 of the ELS:2002, 10th grade, base year student questionnaire (Ingels, *et al*., 2007). Respondents were prompted to indicate yes/no whether they have participated student government.

Socio-economic status (SES). SES is a composite variable computed by the ELS:2002 team (Ingels, *et al*., 2004). Data were taken from the parent questionnaire unless they were not available. Under this condition, data were drawn from the student questionnaire. The SES score is a continuous variable based on five, equally weighted components: (a) Father's/guardian's education, (b) mother's/guardian's education, (c) family income, (d) father's/guardian's

occupation (as defined by the 1989 General Social Survey occupational prestige score), and (e) mother's/guardian's occupation (per 1989 GSS occupational prestige score).

Race and gender. To control for race in the analysis, dummy-coded variables were constructed with non-Hispanic Whites used as the reference group. The groups consisted of: (a) African Americans, (b) Hispanics (all races included), (c) Asian/Pacific Islander, and (d) "other." This last category consisted largely of those reporting being non-Hispanic multiracial or American Indian/Alaska Native. American Indian/Alaskan Natives were aggregated into the "other" category due to the small number of participants (n = 131). To control for gender in the analysis, a dummy-coded variable was constructed with "male" used as the reference group.

Procedures

The data used in this study was came from the Educational Longitudinal Study of 2002 (ELS:2002) public use data file (Ingels, *et al*., 2007). The ELS:2002 surveyed 10th-grade students and their parents, as well as the teachers, principals, and librarians at their schools. In addition to survey data, external data sources were integrated into the ESL:2002 data set (e.g. 2000 Census data, National Center for Educational Statistics databases, and national standardized test scores such as the SAT).

The intent of the student questionnaire was to obtain information on students' background, school experiences and activities, plans and goals for the future, employment and out-of-school experiences, language background, and psychological orientation toward learning (Ingels, *et al*., 2004). Development of the questionnaires consisted of eight steps: (a) sharing of draft data elements with government agencies, policy groups, and interested parties, (b) submission to a technical review panel consisting of "a specially appointed, independent group of substantive, methodological, and technical experts" (Ingels *et al*., 2007, p. 17), (c)

interdivisional National Center for Educational Statistics (NCES) review, (d) revision based on reviewer comments, (e) a written justification to address issues pertaining to the items chosen to measure the different constructs, (f) review from the federal Office of Management and Budget (OMB), (g) revision based on OMB comments, and (h) field testing and revision based on field test results. This last part consisted of analysis of: (a) item nonresponse, (b) test-retest reliabilities, (c) scale reliabilities, (d) correlation analysis, (e) assessment of item difficulty and discrimination.

The student questionnaire was administered in a group setting at school. 85.4% of participants completed surveys during the initial administration with 11.1% completing them on a scheduled makeup day. The remaining participants (3.5%) were contacted by phone with data gathered through computer-assisted telephone interviews.

Results

As can be seen in Table 1, non-native speakers of English had a lower mean score on the School Climate scale than native English speakers (2.713 vs. 2.854), but higher mean scores on the Student-Teacher Relationships scale (2.929 vs. 2.897).

A correlation analysis among the predictor variables unique to this study (i.e. SSA, ISS, INS, and SGP) was performed to assure the multicolinearity assumption was not violated. Results revealed significant correlations ($\alpha = .05$, $p < .01$) among all variables, though none exceeded .519 suggesting this assumption was not violated (see Table 2).

Though an understanding of the relationships is not complete, student variables such as gender and race appear to play a role in students' sense of school belonging (L. Anderman & Freeman, 2004). SES is known to have a strong influence on the success individuals have at school (Paris, Morrison, & Miller, 2006). To account for these factors, a series of four

hierarchical multiple regression analyses were conducted: (a) student-teacher/English as a native language, (b) school climate/English as a native language, (c) student-teacher/SREA, and (d) school climate/SREA. Gender, race, and SES were included in the first step of each model. The second step of each model consisted of participation in school-sponsored activities (SSA), interscholastic sports/activities (ISS), intramural sports/activities (IMS), and participation in student government (SGP). The third step consisted of either self-reported English ability (SREA) or whether participants were native speakers of English.

In the first model, perceived student-teacher relationships was the criterion variable and native language was the predictor variable in step 3. This model included the entire sample. As seen in Table 3, significant proportions of the variance were explained at each step ($\alpha = .05$, $p < .001$). However, the adjusted R^2 was small for each step (.006, .016, and .018 respectively) indicating that less than 2% of the variability at any one step was accounted for by the predictor variables. At step 1, African American and "other" were not significant predictors of student-teacher relationships though Asian/Pacific Islander and Hispanic *were* significant predictors—along with female, and SES (Table 4). At step 2, IMS or ISS were not significant predictors once race, gender, and SES were accounted. However, SSA and SGP were ($p < .001$, $\beta = .080$; $p = .028$, $\beta = .027$ respectively). At step 3, unexpectedly, being a *non-native* speaker of English significantly predicted positive student-teacher relationships ($p < .001$, $\beta = -.070$).

In the second model, perceived school climate was the criterion variable and native language was the predictor variable in level 3. The full sample was included in this model. As seen in Table 5, significant proportions of variance were explained at each step ($\alpha = .05$, $p < .001$) though again, the adjusted R^2 was small for each step (.029, .031, and .033 respectively) accounting for less than 3.5% of the variability at any one step. In step 1, the analysis indicated

all factors were significant predictors of perceptions of positive school climate (see Table 6). At step 2, ISS and SGP were significant predictors accounting for race, gender, and SES ($p = .016$, $\beta = .033$; $p = .048$, $\beta = .024$ respectively). At step 3, speaking English as a native language significantly predicted positive student-teacher relationships taking all other predictors into account ($p = .002$, $\beta = .047$).

In the third model, perceived student-teacher relationships was the criterion variable and SREA was the predictor variable in step 3. Only ELLs were used for this model. None of the steps showed significance in and of themselves (Table 7). Again, the adjusted R^2 was small for each step (.004, .002, and .003 respectively) accounting for less than 0.1% of the variability at any given step. Upon closer inspection, only gender predicted perceptions of positive student-teacher relationships at step 1 ($p = .015$, $\beta = .067$) (Table 8). None of the participation variables were significant predictors at step 2, and SREA was not a significant predictor at step 3.

Perceived school climate was the criterion variable and SREA the predictor variable in the fourth model. Again, only ELLs were used in this analysis. As seen in Table 9, a significant proportion of the variance was explained at each steps ($p = .001$, .007, and .001 respectively) though again, the adjusted R^2 was small (.013, .011, and .015 for each respective step) accounting for less than 2.0% of the variability at any one step. At step 1, gender and SES were significant predictors of positive school climate ($p = .004$, $\beta = .084$; $p < .001$, $\beta = .107$ respectively) (Table 10). At step two, none of the participation variables proved to be significant while SREA was significant at step 3 ($p = .011$, $\beta = .071$).

Discussion

The results offered partial support to the research questions. Being a non-native speaker of English was a significant negative predictor of positive perceptions of school climate after

accounting for variables known to be associated with belonging. In other words, non-native speakers of English were less likely to have positive perceptions of school climate than their native English-speaking peers. Indeed, the lower an ELL student's perceived English proficiency, the less likely they were to have a positive sense of school climate. After SES and gender, language ability was the only variable to predict positive perceptions of school climate among ELLs.

Interestingly though, the *opposite* was true in terms of positive perceptions of student-teacher relationships—being a non-native speaker of English predicted *positive* student-teacher relations. This finding was not expected. Several possible explanations for this finding are tentatively offered. First, it could be that ELLs compensated for a lack of positive perceptions of school climate by seeking additional support from teachers. Conversely, it could be that teachers are sensitive to the needs of others, and put forth extra effort to build rapport with those students they perceived did not "fit in." Alternatively, this finding could be the result of cultural differences. Eccles *et al*. (1993) note that junior high students report less satisfaction in their interpersonal relationships with their junior high teachers compared to their elementary teachers. Additionally, they report that junior high students perceive their teachers as less friendly, supportive, and caring than their elementary school teachers. Junior high school teachers on the other hand, report having less trust in their students than elementary school teachers. However, it is important to note that the nature of these relationships may be particular to an American context. ELLs who are recent immigrants may be coming from regions where student-teacher relationships have a fundamentally different dynamic. If English proficiency is linked to acculturation as some have proposed (Epstein, Botvin, & Diaz, 2001), then it may be that these students have yet to learn what constitutes conventional, or "appropriate," student-teacher

interpersonal relations. Adding further complexity to the issue however is that self-perceived English language ability did *not* predict positive student-teacher relations—only being a non-native speaker of English. Clearly, further investigation is warranted to better understand this relationship.

While the results suggest that English ability may play a role in ELLs' sense of school belonging, the analysis offered no support for the justification of extending Finn's (1989) *Participation-Identification Model* to ELLs—that involvement in school activities would predict ELLs' positive perceptions of school climate or student-teacher relationships. Participation in extracurricular activities has been associated with positive attitudes toward school and more personal student-teacher relations (Holland & Andre, 1987)—thus, this finding was not expected. Those involved in extracurricular involvement are less likely to drop out of school (Mahoney & Cairns, 1997). As noted earlier, ELLs are at risk of dropping out of school (Larsen, 2004). Thus, these findings are a concern in that they provide no evidence that involvement in extra-curricular activities by ELLs would act as a buffer in dropping out of school.

The results of the analyses indicated that one of the strongest predictors of both positive perceptions of school climate and student-teacher relationships was being female. This was true when the entire sample was analyzed as well as with the models that only included ELLs. Indeed, being female was the *only* predictor of positive perceptions of student-teacher relationships among ELLs. These results support earlier findings that indicate that girls may have a stronger sense of school belonging than boys (Voelkl, 1997).

The results also add to the body of evidence that links SES to various educational outcomes (Paris, Morrison, & Miller, 2006). SES was a significant predictor of both positive perceptions of school climate and student-teacher relationships when all students were included

in the analysis. SES was also a strong predictor of school climate for ELLs. Interestingly, it was *not* a significant predictor of positive student-teacher relationships among ELLs.

The results also suggested race differences in participants' sense of school belonging. Being Asian/Pacific Islander positively predicted perceptions positive of student-teacher relationships *before* native English-speaking status was taken into account. When native English-speaking status was accounted for, being Asian no longer predicted positive perceptions of student-teacher relationships. In regards to positive perceptions of school climate, membership in *any* minority group was a significant *negative* predictor—even when native English-speaking status was taken into account. In the models using only ELLs, race did not significant predict positive perceptions of student-teacher relationships or school climate. However, though these findings may indicate that racial background influences a student's sense of school belonging, this was not a nested design which would have provided contextual clues. L. Anderman and Freeman (2004) stress the importance of considering the context in understanding minority students' sense of belonging. They point out that differences that appear to be due to race may actually be a function of minority status. Thus, a Hispanic student in a school in which she is the sole representative of her group may have a very different sense of school belonging than the Hispanic student from a school with a sizeable proportion of other Hispanic students.

Limitations

A limitation of the study involved the selection of participants and use of English for the questionnaire in which all measures were based. As previously noted, schools were informed that eligible ELLs are those that have received instruction in English for at least three years or deemed able to meaningfully respond to the questionnaire (Ingels, et al., 2004). Thus, the most recent immigrants and/or those with limited English proficiency were excluded from the study.

Though this fact certainly should be considered in interpreting the results, it is promising that statistical significance was achieved in spite of the exclusion of these students. However, future studies should provide assessments in participants' native language to gain a better understanding of the challenges these learners face.

Implications

ELLs are over-represented among the economically disadvantaged (Larsen, 2004) and many are going through periods of transition (Yeh & Inose, 2003). Thus, these students may greatly benefit from a strong sense of school belonging. Yet, the results of this study indicate that ELLs' English proficiency is an important predictor of positive perceptions of school climate. It is imperative that researchers and educators have a better understanding of factors that contribute to a sense of school belonging for these students. This study is a step toward that direction.

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Appendix A: Measures

Student-Teacher Relationships

How much do you agree or disagree with each of the following statements about your current school and teachers?

Students get along well with teachers
The teaching is good
Teachers are interested in students
When I work hard on schoolwork, my teachers praise my effort
In class I often feel "put down" by my teachers

School Climate

How much do you agree or disagree with each of the following statements about your current school and teachers?

There is real school spirit
Students make friends with students of other racial and ethnic groups
Other students often disrupt class
In class I often feel "put down" by other students
I don't feel safe at this school
Disruptions by other students get in the way of my learning
Misbehaving students often get away with it
There are gangs in school
Fights often occur between different racial/ethnic groups

Appendix B: Tables

Table 1
Means and Standard Deviations for School Climate and Student-Teacher Relationship Scales

		School Climate		Student-Teacher Relationships	
	n	Mean	SD	Mean	SD
Native English Speakers	11,941	2.854	.418	2.897	.476
Non-Native English Speakers	2,419	2.713	.420	2.929	.458

Table 2
Correlations

		SSA	ISS	IMS	SGP
SSA	Pearson Correlation		.124**	.104**	.261**
	Sig. (2-tailed)		.000	.000	.000
	N		11629	7822	14503
ISS	Pearson Correlation	.124**		.519**	.106**
	Sig. (2-tailed)	.000		.000	.000
	N	11629		7656	11876
IMS	Pearson Correlation	.104**	.519**		.094**
	Sig. (2-tailed)	.000	.000		.000
	N	7822	7656		7992
SGP	Pearson Correlation	.261**	.106**	.094**	
	Sig. (2-tailed)	.000	.000	.000	
	N	14503	11876	7992	

**. Correlation is significant at the 0.01 level (2-tailed).

Table 3
Model 1: Perceived Student-Teacher Relationships with Native Language at Step 3

Sum of Squares	df	Mean Square	F	Sig.	
1	10.029	6	1.672	7.549	.000
2	25.325	10	2.533	11.542	.000
3	29.898	11	2.718	12.421	.000

Table 4
Model 1: Details

Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.

1	(Constant)	2.838	.010		297.474	.000
	African Am.	-.013	.017	-.009	-.759	.448
	Asian/Pac Is.	.058	.018	.038	3.135	.002
	Hispanic	.045	.016	.035	2.788	.005
	other	-.020	.024	-.010	-.851	.395
	female	.036	.011	.038	3.266	.001
	SES	.034	.008	.053	4.351	.000
2	(Constant)	2.804	.011		260.590	.000
	African Am.	-.015	.017	-.011	-.869	.385
	Asian/Pac Is.	.050	.018	.033	2.705	.007
	Hispanic	.052	.016	.041	3.253	.001
	other	-.024	.024	-.012	-1.004	.315
	female	.024	.011	.025	2.115	.034
	SES	.022	.008	.034	2.780	.005
	IMS	.007	.005	.020	1.432	.152
	ISS	.006	.005	.019	1.359	.174
	SSA	.034	.005	.080	6.366	.000
	SGP	.060	.027	.027	2.192	.028
3	(Constant)	2.884	.020		140.826	.000
	African Am.	-.015	.017	-.011	-.891	.373
	Asian/Pac Is.	-.006	.022	-.004	-.267	.790
	Hispanic	.014	.018	.011	.787	.431
	other	-.031	.024	-.016	-1.301	.193
	female	.024	.011	.025	2.105	.035
	SES	.027	.008	.042	3.409	.001
	IMS	.007	.005	.019	1.385	.166
	ISS	.007	.005	.020	1.424	.154
	SSA	.034	.005	.080	6.368	.000
	SGP	.061	.027	.027	2.222	.026
	English as native language	-.083	.018	-.070	-4.571	.000

a. Dependent Variable: BlgTch

Table 5

Model 2: Perceived School Climate with Native Language at Step 3

Sum of Squares	df	Mean Square	F	Sig.
1	36.846	6	6.141	37.368	.000
2	40.232	10	4.023	24.537	.000
3	41.828	11	3.803	23.219	.000

Table 6

Model 2: Details

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.791	.008		339.654	.000
	African Am.	-.029	.014	-.025	-2.015	.044
	Asian/Pac Is.	-.102	.016	-.077	-6.407	.000
	Hispanic	-.090	.014	-.082	-6.542	.000
	other	-.071	.021	-.040	-3.407	.001
	female	.036	.010	.044	3.823	.000
	SES	.065	.007	.115	9.559	.000
2	(Constant)	2.774	.009		298.227	.000
	African Am.	-.030	.014	-.026	-2.096	.036
	Asian/Pac Is.	-.102	.016	-.078	-6.424	.000
	Hispanic	-.088	.014	-.080	-6.350	.000
	other	-.073	.021	-.042	-3.510	.000
	female	.035	.010	.042	3.562	.000
	SES	.059	.007	.106	8.654	.000
	IMS	.002	.004	.006	.420	.674
	ISS	.010	.004	.033	2.415	.016
	SSA	.007	.005	.020	1.596	.111
	SGP	.047	.024	.024	1.977	.048
3	(Constant)	2.727	.018		153.964	.000
	African Am.	-.030	.014	-.025	-2.080	.038
	Asian/Pac Is.	-.069	.019	-.053	-3.635	.000
	Hispanic	-.065	.016	-.059	-4.204	.000
	other	-.069	.021	-.039	-3.307	.001
	female	.035	.010	.042	3.575	.000
	SES	.056	.007	.100	8.124	.000
	IMS	.002	.004	.006	.458	.647
	ISS	.010	.004	.032	2.364	.018
	SSA	.007	.005	.020	1.601	.110
	SGP	.047	.024	.024	1.966	.049
	English as native language	.049	.016	.047	3.121	.002

a. Dependent Variable: BlgScCl

Table 7

Model 3: Perceived Student-Teacher Relationships with SREA at Step 3

	Sum of Squares	df	Mean Square	F	Sig.
1	2.470	6	.412	1.932	.073
2	2.617	10	.262	1.225	.270
3	3.091	11	.281	1.317	.209

Table 8

Model 3: Details

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.797	.044		62.865	.000
	African Am.	.099	.078	.041	1.280	.201
	Asian/Pac Is.	.085	.047	.091	1.803	.072
	Hispanic	.087	.048	.093	1.811	.070
	other	.055	.076	.024	.726	.468
	female	.062	.025	.067	2.441	.015
	SES	-.013	.017	-.021	-.750	.454
2	(Constant)	2.799	.046		60.668	.000
	African Am.	.098	.078	.041	1.260	.208
	Asian/Pac Is.	.082	.048	.087	1.729	.084
	Hispanic	.087	.048	.094	1.814	.070
	other	.057	.076	.024	.744	.457
	female	.058	.026	.063	2.236	.026
	SES	-.014	.017	-.023	-.794	.427
	IMS	-.001	.010	-.005	-.142	.887
	ISS	-.005	.011	-.015	-.446	.655
	SSA	.008	.012	.021	.681	.496
	SGP	-.010	.074	-.004	-.138	.890
3	(Constant)	2.684	.090		29.724	.000
	African Am.	.099	.078	.041	1.273	.203
	Asian/Pac Is.	.084	.048	.090	1.776	.076
	Hispanic	.088	.048	.094	1.819	.069
	other	.056	.076	.024	.735	.462
	female	.058	.026	.063	2.235	.026
	SES	-.019	.018	-.032	-1.094	.274
	IMS	.000	.010	-.003	-.081	.935
	ISS	-.004	.011	-.013	-.383	.702
	SSA	.008	.012	.022	.701	.483
	SGP	-.014	.074	-.005	-.184	.854
	SREA	.032	.021	.042	1.491	.136

a. Dependent Variable: BlgTch

Table 9

Model 4: Perceived School Climate with SREA at Step 3

	Sum of Squares	df	Mean Square	F	Sig.
1	3.913	6	.652	3.906	.001
2	4.058	10	.406	2.425	.007
3	5.139	11	.467	2.804	.001

Sum of Squares	df	Mean Square	F	Sig.	
1	3.913	6	.652	3.906	.001
2	4.058	10	.406	2.425	.007
3	5.139	11	.467	2.804	.001

Table 10

Model 4: Details

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.688	.039		68.245	.000
	African Am.	-.012	.068	-.006	-.177	.859
	Asian/Pac Is.	-.035	.042	-.041	-.828	.408
	Hispanic	-.015	.042	-.018	-.359	.719
	other	-.038	.068	-.018	-.559	.576
	female	.065	.022	.079	2.903	.004
	SES	.057	.015	.107	3.774	.000
2	(Constant)	2.683	.041		65.695	.000
	African Am.	-.012	.069	-.006	-.176	.860
	Asian/Pac Is.	-.032	.042	-.039	-.769	.442
	Hispanic	-.016	.043	-.019	-.368	.713
	other	-.039	.068	-.019	-.580	.562
	female	.070	.023	.084	3.018	.003
	SES	.058	.015	.108	3.760	.000
	IMS	.004	.009	.015	.460	.645
	ISS	.004	.010	.013	.393	.694
	SSA	-.005	.010	-.016	-.516	.606
	SGP	-.008	.065	-.004	-.124	.901
3	(Constant)	2.509	.080		31.486	.000
	African Am.	-.009	.068	-.004	-.136	.892
	Asian/Pac Is.	-.029	.042	-.035	-.692	.489
	Hispanic	-.015	.043	-.019	-.362	.718
	other	-.041	.068	-.019	-.604	.546
	female	.069	.023	.084	3.022	.003
	SES	.049	.016	.092	3.138	.002
	IMS	.005	.009	.018	.565	.572
	ISS	.005	.010	.016	.488	.625
	SSA	-.005	.010	-.015	-.479	.632
	SGP	-.012	.065	-.005	-.180	.857
	SREA	.048	.019	.071	2.548	.011

a. Dependent Variable: BlgScCl